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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,928	03/22/2006	Mark Thomas Johnson	NL 031147	4409

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EXAMINER	
SADIO, INSA	

ART UNIT	PAPER NUMBER
2629	

MAIL DATE	DELIVERY MODE
11/12/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/572,928	JOHNSON ET AL.	
	Examiner	Art Unit	
	INSA SADIO	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 March 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, **the first wavelength sensitive filter and second wavelength sensitive filter** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 5, and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai et al. (US Publication number 2003/0016198), hereinafter referenced as Nagai, in view of Allen et al. (US Publication 2003/0111965), hereinafter referenced as Allen.

Regarding claim 1, Nagai discloses an Image display and control method thereof. Further, Nagai discloses wherein said A color display screen (5) (see Fig. 10 [10]) comprising a plurality of cells (see Fig. 10 [L]), each cell (2) comprising: a pixel (see Fig. 10 [L]) capable of providing a first output light (see para [0117 (R)]) of a first color and a second output light of a second color (see para [0117 (B)]); and a photosensitive device (see para [0117 (photo detectors)]) for converting an opticaical display control signal (see para [0030 (control signal)]) comprising information about the first output light and the second output light into electrical signals (I) (see para [0117 (current)]) to control the first output light and the second output light.

However, Nagai fails to disclose wherein said **the photosensitive device having decoding means for decoding the information about the first and the second output light.**

In a similar field of endeavor Allen discloses a Method and apparatus for image and video display. In addition, Allen discloses a light receiving diode (LRD) (equivalent to **the photosensitive device** (see para [0032], [0036], and Fig.8 [142])) a decoding circuit (equivalent to the **decoding means** (see para [0036], Fig. 8 [150]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nagai by specifically providing wherein said **the photosensitive device having decoding means for decoding the information about the first and the second output light**, as taught by Allen, for the purpose of processing the data received.

Regarding claim 4, Nagai in view of Allen disclose the limitation of claim 1 above. Further, Nagai discloses wherein said the optical display control signal (Li) comprising successively the information about the first output light and the second output light (see para [0058]).

However, Nagai fails to disclose wherein said **the decoding means having means for activating the first output light and the second output light of the pixel in synchronization with the information as successively comprised in the optical display control signal.**

However, Allen discloses wherein said **the decoding means (**Decode circuit 150**) having means for activating the first output light and the second output light of the pixel in synchronization with the information as successively comprised in the optical display control signal (**decode image information 152 to produce outputs to activate emissive components 144, 146 and 148**)** (see para [0037])**.**

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nagai by specifically providing wherein said **the decoding means having means for activating the first output light and the second output light of the pixel in synchronization with the information as successively comprised in the optical display control signal**, as taught by Allen, for the purpose of processing the data received.

Regarding claim 5, Nagai in view of Allen disclose the limitation of claim 4 above. Further, Nagai discloses wherein said the means for activating comprising a first switch and a second switch common to all of the photosensitive devices (D) of the plurality of cells (2) (see para [0032], Fig. 13 [66]), the pixel (P) comprising a first subpixel and a second subpixel (see Fig. 10 [L (R)], [L (B)]), each of the first subpixels of the plurality of cells (2) being coupled via the first switch to a first supply voltage (see para [0129]), each of the second subpixels of the plurality of cells (2) being coupled via the second switch to a second supply voltage (see para [0129]), the first switch and the second switch being operable in synchronization with the information (see para [0133]).

Regarding claim 12, Nagai in view of Allen disclose everything as applied above in claim 11.

Further, Allen discloses a projector (see Fig. 1 [12]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nagai by specifically providing wherein said **the optical image source (3)being a projection device or a laser scanner**, as taught by Allen, for the purpose of energizing pixels on the display screen.

Claims 2, 3, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai in view Allen and further in view of Sandberg et al. (US Patent number 5,920,388), hereinafter referenced as Sandberg.

Regarding claim 2, Nagai in view of Allen disclose the limitation of claim 1 above. Further, Nagai discloses wherein said the optical display control signal (Li) comprising a first optical display control signal comprising information about the first output light and having a first spectrum, and a second optical display control signal comprising information about the second output light and having a second spectrum (see para [0125]).

However, Nagai in view of Allen fail to disclose wherein said **the decoding means comprising a first wavelength sensitive filter for filtering the first optical display control signal, and a second wavelength sensitive filter for filtering the second optical display control signal.**

However, Allen is cited to teach that it is well known to employ optical/electronic devices (see para [0023]). Also, Sanberg discloses a first wavelength sensitive optical detecting unit which includes a first wavelength sensitive filter and a second wavelength sensitive optical detecting unit which includes a second wavelength sensitive filter (see claim 29).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Allen's optical/electronic devices with Sandberg's first

wavelength sensitive optical detecting unit which includes a first wavelength sensitive filter and a second wavelength sensitive optical detecting unit which includes a second wavelength sensitive filter, because this would separate the colors received by the photosensitive device.

Regarding claim 3, Nagai in view of Allen disclose everything as applied above in claim 1. Further, Nagai discloses wherein said each cell (2) comprising another photosensitive device (D) (see para [0117 (photo detectors)]), the pixel (P) comprising a first subpixel for providing the first output light (see Fig. 10 [L (R)]), the first subpixel being coupled to the photosensitive device (D) and the other photosensitive device (D) (see para [0117]).

However, Allen is cited to teach that it is well known to employ optical/electronic devices (see para [0023]). Also, Sanberg discloses a first wavelength sensitive optical detecting unit which includes a first wavelength sensitive filter (see claim 29).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Allen's optical/electronic devices with Sandberg's first wavelength sensitive optical detecting unit which includes a first wavelength sensitive filter, because this would retrieve the first color received by the photosensitive device.

Regarding claim 10, Nagai in view of Allen and further in view of Sandberg disclose the limitation of claim 2 above. Further, Nagai discloses semiconductor layer which makes it possible possible to select a wavelength of light emitted from the semiconductor light emitting element that ranges from an ultraviolet ray to an infrared ray . This reads on the claimed invention (see para [0077]).

Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai in view Allen and further in view of Yanagi et al. (US Publication number 2002/0063669), hereinafter referenced as Yanagi.

Regarding claim 6, Nagai in view of Allen disclose the limitation of claim 4 above. Further, Nagai discloses wherein said the photosensitive device (D) further comprising a photosensitive element (see para [0117], (photo detectors)).

However, Nagai fails to disclose wherein said **the decoding means further comprising a reset switch for resetting the photosenstive element substantially between the information about the first output light and the second output light.**

However, Yanagi discloses a decoder (see Fig.2 [4c]) and a switch (see Fig. 2 4d), (see para [0083], and para [0087]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nagai in view of Allen by specifically providing wherein said **the decoding means further comprising a reset switch for resetting the photosenstive element substantially between the information about the first output light and the second output light**, as taught by Yanagi, for the purpose of regulating the current provided to the light emitting elements.

Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai in view Itoh et al. (US Patent number 6,452,579), hereinafter referenced as Itoh.

Regarding claim 7, Nagai discloses everything as applied above in claim 6. Further, Nagai discloses wherein said the pixel (P) comprising a first subpixel and a second subpixel, the photosensitive element being coupled to the first subpixel (see para [0117]), the optical display control signal (Li) comprising in a first frame period the information about the first output light and in a second frame period the information about the second output light (see para [0119]).

However, Nagai fails to disclose wherein said **the decoding means being adapted for decoding during the first frame period the information about the first output light and for driving the first subpixel during the second frame period in dependence on the decoding during the first frame period.**

However, Itoh discloses a decoder that gives information about the current frame and the previous frame to the change of region detector (see col 6 line 24-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nagai by specifically providing Itoh's decoder, for the prupose of obtaining feedback to process data.

Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai in view Allen and further in view of Ichikawa et al. (US Patent number 4,682,148), hereinafter referenced as Ichikawa.

Regarding claim 8, Nagai in view of Allen disclose the limitation of claim 1 above. Further, Nagai discloses wherein said the information about at least one of the first output light and the second output light being a modulation of the optical display control signal (see para [0117] (current)).

However, Nagai fails to disclose wherein said **and the decoding means comprising means for demodulating the modulation of the optical display control signal.**

Ichikawa discloses a decoder that decipher (equivalent to demodulate) a message following the address code (see col 3 line 16-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nagai in view of Allen by specifically providing wherein said **and the decoding means comprising means for demodulating the modulation of the optical display control signal**, as taught by Ichikawa, for the purpose of processing the data received.

Regarding claim 9, Nagai discloses everything as applied above in claim 8. Further, Nagai discloses wherein said the means for demodulating the modulation being adapted for demodulating an AC component of the optical display 30 control signal (see para [0130], [0143]).

Regarding claim 11, Nagai discloses everything as applied above in claim 1. Further, Nagai discloses wherein said and an optical image source for transmitting the optical display control signal to the photosensitive device (see para [0117]).

Regarding claim 13, Nagai discloses everything as applied above in claim 1. Further, Nagai discloses wherein said the color display screens being arranged adjacent to each other in a tiled pattern (see para [0059], Fig. 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to INSA SADIO whose telephone number is (571)270-5580. The examiner can normally be reached on MONDAY through FRIDAY 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

INSA SADIO
Examiner
Art Unit 2629

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629

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